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IN THE CLAIMS:

Please amend the claims as follows:

1-136 (Cancelled)

137. (Currently Amended) A device comprising:

~~at least one carbon nanotube electrically coupled to a patterned conductive layer within a horizontally oriented substrate, wherein substantially all of the carbon nanotubes are vertically oriented.~~

a horizontally oriented substrate having:

a silicon layer containing at least one nano-sized diameter silicon pore,

a patterned conductive layer,

wherein at least one carbon nanotube is fabricated within the silicon pore,

wherein the at least one carbon nanotube is electrically coupled to the patterned conductive layer; and

wherein substantially all of the carbon nanotubes are vertically oriented.

138. (Currently Amended) The device of Claim 137, wherein the at least one vertically oriented carbon nanotube is partially embedded within the substrate silicon pore.

139. (Currently Amended) The device of Claim 137, wherein the at least one vertically oriented carbon nanotube is fully embedded within the substrate silicon pore without protruding beyond the substrate silicon pore.

140. (Currently Amended) The device of Claim 137, wherein the at least one vertically oriented carbon nanotubes is disposed outwardly from the substrate silicon pore.

141. (Currently Amended) The device of Claim 137, wherein the substrate silicon layer comprises a substrate material from a class consisting of undoped silicon, doped silicon, crystalline silicon, polysilicon, silicon nitride, undoped silicon dioxide, and doped silicon dioxide.

142. (Currently Amended) The device of Claim 137, wherein at least one vertically oriented carbon nanotube is electrically isolated from the substrate silicon layer.

143. (Currently Amended) The device of Claim 137, wherein the at least one vertically oriented nanotube is fabricated within a specified area of the substrate silicon layer.

144. (Currently Amended) A device of claim 137, comprising a second patterned conductive layer within the ~~horizontally oriented~~ substrate.

145. (Cancelled)

146. (Currently Amended) A device of Claim 145 137, wherein the hole pore diameter is preferably in the range from about 1 nanometer to about 50 nanometers.

147. (Currently Amended) The device of Claim 137, wherein ~~said~~ the carbon nanotube is conductive.

148. (Previously Presented) A device of claim 137, wherein the conductive layer material comprises a member of the class consisting of aluminum, copper, tungsten, titanium, nickel, chromium, and their alloys.